

A birch rope.—D. P. PENHALLOW has described²⁰ a remarkable growth occurring upon a specimen of *Betula populifolia* found in the New Brunswick woods. It is a rope-like structure, reported to have been at least twenty feet long and approximately 1×0.4 cm in diameter, and hanging free. The anatomical study showed that the growth had its origin in a lesion of the living bark. The traumatic reaction, instead of becoming localized and forming wood or sclerotic tissue, continued its development as active parenchyma and forced its way through the overlying and external tissue of the periderm. The form of the outgrowth suggests that it emerged through a lenticel. The outgrowth may be regarded as a special form of tumor, which developed by simultaneous division throughout its entire length and completed its growth in one season. The formation of cork proceeded over the entire surface until the final exhaustion of the parenchyma.—J. M. C.

Homology of the blepharoplast.—IKENO²¹ replies to those who have questioned the correctness of the conclusion set forth in his paper on spermatogenesis in *Marchantia polymorpha*, and reasserts his belief that the blepharoplast is a centrosome. He admits, however, that the centrosome may be absent during the development of spermatogenous tissues in the higher liverworts, and may appear only as the blepharoplast. He thinks that the bodies now called blepharoplasts may not be homologous structures, and suggests three categories: (1) centrosome-blepharoplasts, which are either ontogenetically or phylogenetically of centrosome origin; here belong the blepharoplasts of myxomycetes, liverworts, pteridophytes, and gymnosperms; (2) plasmodermal blepharoplasts, as in *Chara* and some Chlorophyceae; and (3) nuclear blepharoplasts, as in some genera of flagellates.—CHARLES J. CHAMBERLAIN.

The dwarf males of Oedogoniaceae.—A reinvestigation of this subject has brought PASCHER²² to conclusions somewhat different from the commonly accepted views. The egg is regarded as a modified zoospore, the clear receptive spot corresponding to the hyaline ciliated area of the zoospore. The androzoospore (androspore of PRINGSHEIM) represents an intermediate development between the zoospore and spermatozoid. Accordingly the gynandrous and the macrandrous-dioecious forms of the Oedogoniaceae have advanced farther along the line of sexual differentiation than have the forms with dwarf males. The dwarf males of the Oedogoniaceae are homologous with the dwarf sporelings of the Chaetophoraceae and show more relationship with forms like *Chaetophora* than with forms like *Ulothrix*.—CHARLES J. CHAMBERLAIN.

²⁰ PENHALLOW, D. P., A birch rope; an account of a remarkable tumor growing upon the white birch. *Trans. Roy. Soc. Canada II.* 12:239-255. *figs. 9.* 1906.

²¹ IKENO, S., Sur Frage nach der Homologie der Blepharoplasten. *Flora* 96: 538-542. 1906.

²² PASCHER, ADOLF, Ueber die Zwergmännchen der Oedogoniaceen. *Hedwigia* 46:265-278. 1907.